

Claims

1. Device for the control of direction of gas flow in aerosol-producing foggers in the in-and-out breathing zones of a respirator with a bypass device which conveys the aerosol as the gas flows in one direction, and takes it through a bypass past the fogger as it flows in the other direction.
2. Device for the control of as flows in foggers in the in-and-out breathing zones of a respirator by means of a valve that is time-controlled by the respirator, so that the dead-space volume does not receive aerosol.

All Figs. :

Gasfluß = gas flow

Inspiration = inspiration

the advantage of lower consumption of medicine, fewer side-effects due to applied medicines and longer life of the filter.

This is done in the following manner:

1. The breathing air is conveyed through the fogger via closing valves (passively or actively controlled) as indicated in claim 1 (Fig. 3). To make this possible, the valves can be placed at different points in this device. The possibility also exists to use auxiliary devices (e.g. ventilators) in order to optimize the distribution of the aerosol.
2. According to claim 2, a control cable or hose causes a valve to open in function of the volume of breath, the duration of inspiration and the pressure of inspiration, so that the dead space is not filled with aerosol. The possibility also exists in this device to use auxiliary devices (e.g. ventilators) to optimize the distribution of the aerosol.

The invention is described in greater detail below through a drawing.

Fig. 1 according to claim 1 (A) shows the placement of foggers 3 (any kind of fogger can be used) between filter 6 and connection element going to the pipe barrel 7 without breathing-air humidifier at the common end segment (1). This is achieved in that the breathing air is taken through valves (2, 4) (any possible types of valves can be used) via the fogger during the inspiration phase in that the valve 2 opens and the valve 4 closes (under passive or active control), so that the breathing air is guided through a bypass 5

past the fogger (Fig. 1b). To make this possible the valves can be placed at different points in this arrangement (the inspiration valve between input and output of the bypass, the expiration valve in the entire bypass). The inspiration leg of the respirator hose is given reference number 7, the expiration leg number 8.

Fig. 2 shows an invention according to claim 2(A) (any fogger can be used) which opens valve 2 (any possible type of valve can be used) via a control cable or hose 4 during inspiration for the desired time in function of breath volume, inspiration duration and inspiration pressure, under control of the respirator 5 (Fig. 2a). At the end of the inspiration phase and in the expiration phase the valve closes so that the dead space volume is not filled with aerosol (Fig. 2b). Number 6 refers to the filter. The inspiration leg of the respirator hose is referenced by number 7 and the expiration leg by number 8.